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ART UNIT	PAPER NUMBER
2611	4

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

	Application No.	Applicant(s)
	09/378,674	Lee G. Lawrence et al
	Examiner	Group Art Unit
	Vivek Srivastava	2611

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire ____ *3* ____ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-18* _____ is/are pending in the application.

    Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-18* _____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

    ☐ All ☐ Some* ☐ None   of the CERTIFIED copies of the priority documents have been

       ☐ received.

       ☐ received in Application No. (Series Code/Serial Number) _____ .

       ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    *Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *2 and 3*

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 U.S.C. § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2.   Claims 1 - 3, 5, 7 - 9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by

O'Callaghan et al (5,477,263 - cited by applicant).

        Considering claim 1, O'Callaghan discloses a method for manipulating a broadcast signal

(col 5 lines 4-20 and col 6 lines 23 - 42, received stream is time staggered), receiving a signal at

the headend (fig 4 items 401 - 404) establishing a sliding-window time range of the signal that

slides at a playback rate as the signal is received (col 5 lines 4-20, col 6 lines 23-42, fig 4, fig 8,

sliding window time range is established as the signal is received and delayed by headend 400 and

output to multiple program transport stream 410), transmitting at least two streams from the

headend (col 4 lines 52-57 and col 5 lines 5-20, plurality of staggered streams are transmitted),

the at least two streams being derived from the signal (col 4 lines 52-57 and col 5 lines 5-20,

streams are staggered from the received signal), and each stream originating from a corresponding

different playback point in the sliding-window time range (col 5 lines 4-54).

Considering claim 2, O'Callaghan discloses transmitting substantially all of the sliding-

window time range of the signal from the headend to form a substantially continuous range of

streams (col 5 lines 5 - 45, all the staggered streams of the video are transmitted to form the range

of streams).

Considering claim 3, O'Callaghan discloses receiving at least two streams at the

destination and in response to a user at the destination selecting a desired stream of the at least

two streams and playing the desired stream at the destination (col 5 lines 47-55).

Considering claim 5, O'Callaghan discloses multicasting two streams from the headend

(col 5 lines 5 - 20, col 6 lines 23 - 42, headend transmits multiple transport streams), receiving at

least two streams at the plurality of destinations (col 5 lines 4 - 55, col 6 lines 23 - 42, plurality of

destinations is met by digital entertainment terminals at each subscriber premises), and at each

destination, in response to a user at that destination selecting a desired stream of at least two

streams, playing the desired stream at that destination (col 5 lines 47-55).

Considering claim 7, O'Callaghan discloses in response to a user at the destination

requesting to pause (col 9 lines 40 - 47), incrementally switching from the current stream to a

different stream of the at least two streams that originates earlier in the sliding-window time range

than the current stream (col 9 line 22 - col 10 line 13, earlier in the sliding window is met by next

later beginning or transmitted later), and the incremental switching taking place at such a rate to

cause the playback point to remain substantially stationary in time (col 9 line 22 - col 10 line 13,

switching to a stream which is a next later beginning after a time stamp comparison enables the

pause or stationary in time feature), and in response to a user at the destination requesting to

resume, stopping the incremental switching (col 9 line 22 - col 10 line 13, this feature is inherent

and must be included to resume playing the video after pausing, VCR like functionality in col 4

lines 19 - 21, all VCR's include a button for resuming play after pausing).

Considering claim 8, O'Callaghan discloses wherein a current stream originating at a

current playback point is being received and played at the destination (col 4 line 35 - col 5 line

20), in response to a user at the destination requesting to rewind (col 5 lines 25 - 29, col 9 lines

33 - 39), incrementally switching from the current stream to a different stream of the at least two

streams that originates earlier in the sliding-window time range than the current stream (col 5 lines

25 - 29, col 9 lines 33 - 39, earlier in the sliding-window time range is met by program starting

later or transmitted later in time, thus switching to a stream starting later in time would result in

moving earlier in time or reverse), and the incremental switching taking place at such a rate to

cause the playback point to move backward in time (col 5 lines 25 - 29, col 9 lines 33 - 39,

switching to a program starting later in time causes the playback point to move backwards in

time) and in response to a user at the destination requesting to resume, stopping the incremental

switching (col 9 lines 32-39, this feature is inherent and must be included to play the video after

rewinding, VCR like functionality in col 4 lines 19 - 21, all VCR's include a button for resuming

play after rewinding or fast reverse).

Regarding claim 9, O'Callaghan discloses wherein a current stream originating at a current

playback point is being received and played at the destination (col 4 line 35 - col 5 line 20), in

response to a user at the destination requesting to fast-forward (col 5 lines 20 - 25), incrementally

switching from the current stream to a different stream of at least two streams that originates later

in the sliding-window time range than the current stream (col 5 lines 20 - 25, later in the sliding

time-window is met by program started earlier in time or transmitted earlier, thus switching to a

stream started earlier in time would result in moving forward in time or fast forward), and the

incremental switching taking place at such a rate to cause the playback point to move forward in

time (col 5 lines 20 - 25, switching to a program starting earlier in time causes the playback point

to move forward in time), and in response to a user at the destination requesting to resume,

stopping the incremental switching (col 5 lines 20 - 25, col 9 lines 22 - 26, this feature is inherent

and must be included to play the video after fast-forwarding, VCR like functionality in col 4 lines

19 - 21, all VCR's include a button for resuming play after fast-forwarding).

Considering claim 17, O'Callaghan discloses a system for manipulating a broadcast signal

(col 5 lines 4-20 and col 6 lines 23 - 42, received signal is time staggered), a headend receiving

the signal (fig 4 items 401 - 404), the headend being operative to establish a sliding-window time

range of the signal that slides at a playback rate as the signal is received (col 5 lines 4-20, col 6

lines 23-42, fig 4, fig 8 - sliding window time range is established as the signal is received and

delayed by headend 400 and output to multiple program transport stream 410), and the headend

being further operative to transmit at least two streams from the headend (col 4 lines 52-57 and

col 5 lines 5-20, plurality of staggered streams are transmitted), the at least two streams being

derived from the signal (col 4 lines 52-57 and col 5 lines 5-20, streams are staggered from the

signal), and each stream originating from a corresponding different playback point in the sliding

window time range (col 5 lines 4-54).

3.   Claims 11 - 15 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Atalla

et al (5,477,263).

        Considering claim 11, Atalla discloses receiving a signal at a headend (fig 2, col 2 lines 2 -

17, col 3 lines 16 - 46, signal on link 34 is transmitted to community center 10 or headend),

establishing a buffered storage queue at the headend that receives the signal (col 3 lines 16 - 46,

col 4 lines 32 - 67), transmitting a stream from the headend (fig 2 item 65, col 3 lines 16-46), the

stream being derived from the signal (fig 2, col 3 lines 16 - 46, col 4 lines 10 - 18, stream 65 is

derived from the signal transmitted to the headend from master files via link 34), and the stream

originating from a user selected playback point in the buffered storage queue (col 3 lines 16 - 46,

col 5 lines 9 - 12, playback point can be selected by fast forwarding or reversing video in the

buffer).

        Regarding claim 12, Atalla discloses unicasting a plurality of streams (fig 2 - unicasted

streams are met by plurality of streams 65 transmitted to user destination 90), each stream being

derived from the signal (fig 2, col 3 lines 16 - 46, col 4 lines 10 - 18, each stream 65 is derived

from the signal transmitted to the headend from master files by signal 34) , and each stream

originating from a corresponding user selected playback point in the storage queue (col 3 lines 16

- 46, col 5 lines 9 - 12, playback point can be selected by fast-forward or reversing video in the

buffer).

Regarding claim 13, Atalla discloses in response to a user at the destination requesting to

pause (col 2 lines 55 - 58, col 9 lines 26 - 30), sliding the user selected point within the queue at

such a rate to cause the playback point to remain substantially stationary in time (col 2 lines 55 -

58, col 9 lines 26 - 30, the pause feature keeps the video stationary in time), in response to a user

at the destination requesting to resume, stopping the sliding (col 3 lines 16-46, this feature is

inherent and must be included to play the video after pausing, normal controls of a video tape

player in col 2 lines 55 - 65, all video tape players include a button for resuming play after

pausing).

Regarding claim 14, Atalla discloses in response to a user at the destination requesting to

rewind (col 5 lines 8 - 12), sliding the user selected point within the queue at such a rate to cause

the playback point to move backward in time (col 5 lines 8 - 12, sliding backward is met by

reversing at twice the speed), in response to a user at the destination requesting to resume,

stopping the sliding (col 5 lines 8 - 12, this feature is inherent and must be included to play the

video after rewinding, normal controls of a video tape player in col 2 lines 55 - 65, all video tape

players include a button for resuming play after rewinding).

Regarding claim 15, Atalla discloses in response to a user at the destination requesting to fast forward (col 3 lines 37 - 47), sliding the user selected point within the queue at such a rate to cause the playback point to move forward in time (col 3 lines 16-46, sliding forward is met by reading out every 4'th frame), in response to a user at the destination requesting to resume, stopping the sliding (col 3 lines 16-46, this feature is inherent and must be included to play the video after fast-forwarding, normal controls of a video tape player in col 2 lines 55 - 65, all video tape players include a button for resuming play after rewinding).

Considering claim 18, Atalla discloses a headend (fig 2, col 2 lines 2 - 17, col 3 lines 16-46, the headend is met by community center 10), the headend being operative to establish a buffered storage queue at the headend (col 3 lines 16 - 46, col 4 lines 32 - 67), the headend being further operative to transmit a stream from the headend (fig 2 item 65, col 3 lines 16 - 46), the stream being derived from the signal (fig 2, col 3 lines 16 - 46, col 4 lines 10 -18, stream 65 is derived from the signal transmitted to the headend from master files via link 34), and the stream originating from a user selected playback point in the buffered storage queue (col 3 lines 16 - 46, col 5 lines 9 - 12, playback point can be selected by fast-forwarding or reversing video in the buffer).

Claim Rejections - 35 U.S.C. § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

O'Callaghan et al (5,477,263) in view of Rao (5,940,738).

Regarding claim 4, O'Callaghan et al discloses at least two streams which have a

destination (col 4 lines 52 - 57, col 5 lines 47 - 54, col 6 lines 23 - 42), in response to a user at the

destination selecting a desired stream of the at least two streams (col 4 lines 52 - 57, col 5 lines 47

- 55), unicasting the desired stream and playing the desired stream at the destination (col 4 lines

35 - 57, col 5 lines 47 - 54). O'Callaghan fails to disclose the claimed receiving the two streams

at an intermediate device and unicasting the desired stream from the intermediate device.

O'Callaghan discloses unicasting the desired stream from a settop box. Rao teaches

having a user unicast a signal from a intermediate device provides broadband access without the

use of very high bandwidth access lines to a subscriber premises and also conserves bandwidth

(col 2 lines 37 - 67). It would have been obvious including an intermediate device would have

provided broadband access without the use of very high bandwidth access lines. Therefore, it

would have been obvious to one having ordinary skill in the art at the time the invention was

made, to include unicasting a stream from an intermediate device to provide broadband access

without the use of high bandwidth access lines and to conserve bandwidth.

Regarding claim 6, O'Callaghan discloses multicasting at least two streams from a headend (col 4 lines 52-57, col 5 lines 5-20, col 6 lines 23 - 42), at each destination, in response to a user at that destination selecting a desired stream of the at least two streams and playing the desired stream at that destination (col 4 lines 52 - 57, col 5 lines 47-55). O'Callaghan fails to disclose receiving the multicasted at least two streams at a plurality of intermediate devices and unicasting the desired stream from a corresponding intermediate device to that destination for playing.

O'Callaghan discloses unicasting the desired stream from a settop box. Rao teaches having a user unicast a signal from one or more (plurality) intermediate devices provides broadband access without the use of very high bandwidth access lines to subscriber premises and also conserves bandwidth (col 2 lines 37 - 67). It would have been obvious including a plurality of intermediate devices would have provided broadband access without the use of very high bandwidth access lines. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made, to include unicasting a stream from a plurality of intermediate devices to provide broadband access without the use of high bandwidth access lines and to conserve bandwidth.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over O'Callaghan et al (5,477,263) in view of Logan (5,371,551).

Considering claim 10, O'Callaghan discloses in response to user at the destination selecting a desired stream of the at least two streams and receiving the stream at the destination (col 4 lines 52 - 57 and col 5 lines 47-55). O'Callaghan fails to disclose establishing a buffered storage queue at the destination and in response to a user selecting a desired position in the storage queue, playing the stream at the destination from the desired position in the destination buffered storage queue.

Logan teaches including a buffer in a user's receiver provides displaying a mosaic of images representing positions of video which a user can select to view an instant replay (col 2 lines 3 - 10, col 5 lines 35 - 50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify O'Callaghan to include a buffer storage queue at the destination as claimed to provide the user with an instant replay feature enabling the user to quickly replay a desired portion of a video.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atalla (5,832,287) in view of Logan et al (5,371,551).

Considering claim 16, Atalla discloses receiving the stream at the destination (fig 2 item 90, col 3 lines 16 - 47, col 5 lines 1 - 9) and playing the stream at the destination via a settop box (col 5 lines 1-21, col 6 lines 57 - 67). Atalla fails to disclose establishing a buffered storage queue at the destination that receives the signal and in response to a user selecting a desired position in

the destination buffered storage queue, playing the stream at the destination from the desired

position in the destination buffered storage queue.

Logan teaches including a buffer in a user's receiver provides displaying a mosaic of

images representing positions of video which a user can select to view an instant replay (col 2

lines 3 - 10, col 5 lines 35 - 50). Therefore, it would have been obvious to one having ordinary

skill in the art at the time the invention was made to modify Atalla to include a buffer storage

queue at the destination as claimed to provide the user with an instant replay feature enabling the

user to quickly replay a desired portion of a video.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Ganek et al (5,682,597) - VOD request asynchronous with start of NVOD transmission

Richard, III et al (5,790,174) - VOD services via PSTN architecture

Suzuki (5,956,488) - System for multimedia access with VCR type functions

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308- 5359 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Vivek Srivastava whose telephone number is (703) 305 - 4038. The

examiner can normally be reached on Monday - Thursday from 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andy Faile, can be reached at (703) 305 - 4380.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the group receptionist whose telephone number is (703) 305 - 3900.

VS 2/3/01

**VIVEK SRIVASTAVA
PATENT EXAMINER**